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July 10, 2006

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Re: **Application Serial No.:** 09/683,944  
**Confirmation No.:** 5491  
**Filing Date:** March 5, 2002  
**Applicants:** Parmelee, et al  
**Title:** Automated Transaction Machine Digital  
Signature System And Method  
**Docket No.:** D-1154 R3

Sir:

Please find enclosed the Brief of Appellant pursuant to 37 C.F.R. § 41.37 for filing in the above-referenced application.

Please charge the fee required with this filing (\$500) and any other fee due to Deposit Account 09-0428 of Diebold Self-Service Systems.

Very truly yours,

Ralph E. Jocke Reg. No. 31,029

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D-1154 R3

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In Re Application of:	)	
<b>Parmelee, et al.</b>	)	
	)	Art Unit 3621
Serial No.: <b>09/683,944</b>	)	
	)	
Confirm. No.: <b>5491</b>	)	
	)	
Filed: <b>March 5, 2002</b>	)	Patent Examiner
	)	Kambiz Abdi
For: <b>Automated Transaction Machine</b>	)	
<b>Digital Signature System And</b>	)	
<b>Method</b>	)	

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**BRIEF OF APPELLANTS PURSUANT TO 37 C.F.R. § 41.37**

Sir:

The Appellants hereby submit their Appeal Brief pursuant to 37 C.F.R. § 41.37  
concerning the above-referenced Application.

07/13/2006 MBELETE1 00000056 090428 09683944  
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**(i)**

**REAL PARTY IN INTEREST**

The Assignee of all right, title and interest to the above-referenced Application is  
Diebold, Incorporated, an Ohio corporation.

**(ii)**

**RELATED APPEALS AND INTERFERENCES**

Appellants, Appellants' legal representative, and the assignee of the present application are not aware of any other prior and pending appeals, interferences or judicial proceedings which may be related to, directly affect or have a bearing on the Board's decision in the pending appeal.

**(iii)**

## **STATUS OF CLAIMS**

Claims 1-20 are pending in the Application.

Claims rejected: 1-20

Claims allowed: none

Claims confirmed: none

Claims withdrawn: none

Claims objected to: none

Claims canceled: none

Appellants appeal the rejections of claims 1-20. These claim rejections were the only claim rejections present in the final Office Action (“Action”) dated February 13, 2006.

(iv)

## **STATUS OF AMENDMENTS**

A final rejection was made February 13, 2006. No amendments to the claims were requested to be admitted after the non-final rejection.

(v) **SUMMARY OF CLAIMED SUBJECT MATTER**

*Concise explanations of exemplary forms of the claimed invention:*

**With respect to independent claim 1**

An exemplary form of the invention is directed to a method. The method comprises the step (a) of producing a plurality of digital certificates (45) (Figure 1) for a plurality of individual customers (Paragraphs [0100]). Each individual customer is associated with an account (40, 48, 706, 708) (Figures 1 and, 18).

The method also comprises the step (b) of associating through operation of at least one computer, the accounts of the individual customers with the corresponding digital certificates of the individual customers (Paragraphs [0100]).

In addition, the method comprises the step (c) of producing at least one card for each of the individual customers (Figure 16; Paragraph [0099]). Each card includes first visible digital signature service source indicator mark indicia thereon corresponding to a digital signature service (Figure 16; Paragraph [0103]). Each card also includes machine readable data corresponding to an account number associated with the account of the individual customer (Paragraphs [0111] - [0013]).

The method further includes the step (d) of sending the cards to the individual customers (Paragraph [0112]).

The method further includes the step (e) of digitally signing (618) (Figure 17; Paragraph [0091]) an electronic document through operation of one of a plurality of automated transaction machines (10, 524, 716) (Figures 2, 16 and 18). In accordance with the recited method step, each

automated transaction machine is adapted to display (612) a visual representation of the electronic document (162, 306, 326, 346) (Figures 6, and 9-11) through a display device (18, 524) (Figures 1, 2, and 16; Paragraphs [0054] and [0088]) of the automated transaction machine (520) (Figures 2,16). Each automated transaction machine is adapted to cause the electronic document to be digitally signed (618) (Figure 17; Paragraph [0091]) responsive to communication with the digital signature service (710) (Figure 18). In addition, digitally signing the electronic document at the one machine through communication with the digital signature service includes communicating an account number on a card that is read (606) (Figure 17) by the one automated transaction machine (10, 520) (Paragraphs [0046], [0047] and [0111]).

#### **With respect to independent claim 12**

Another exemplary form of the invention is directed to a method that includes the step (a) of providing at least one card to each of a plurality of individual customers (Figure 16; Paragraph [0099]). Each card includes a visible digital signature service source indicator mark thereon (Paragraphs [0051] and [0103]). Each card includes machine readable data corresponding to at least one account identifying number associated with a respective individual customer to which the card is provided (Paragraphs [0111] - [0113]).

The method further includes the step (b) of providing on each of a plurality of cash dispensing ATMs (10) (Figures 1 and 2) a visible digital signature service source indicator mark that visually corresponds to the digital signature service source indicator mark included on the cards (Figure 16; Paragraph [0051] and [0103]).



The method further includes the step (c) of operating one of the plurality of cash dispensing ATMs to:

- (i) read (606) (Figure 17) data on a card presented to the one ATM by a customer (Paragraphs [0046], [0047] and [0111]);
- (ii) output (612) a visual representation of an electronic document (162, 306, 326, 346) through at least one output device (14, 18, 524) (Figures 1, 2, and 16; Paragraphs [0054] and [0088]) in operative connection with the one ATM; and
- (iii) cause the electronic document to be digitally signed (618) (Figure 17; Paragraph [0091]) responsive to communication between the one ATM and a digital signature service server (710) (Figure 18).

The digital signature service server is adapted for operative connection with each of the plurality of ATMs (716). In addition, the communication between the ATM and the digital signature service server includes communicating from the one ATM to the digital signature service server, the at least one account identifying number corresponding to the data read from the card by the one ATM (Paragraphs [0046], [0047] and [0111]).

#### **With respect to independent claim 17**

Another exemplary form of the invention is directed to a method. The method includes the step (a) of generating through operation of at least one computer (32), a plurality of private

keys (44) (Figure 1) and for each private key, a corresponding public key (Paragraph [0100]).

The method further includes the step (b) of storing data corresponding to each of the private keys generated in (a) in at least one data store (34) through operation of at least one computer (Paragraph [0039]). The data corresponding to each private key is stored in correlated relation with data representative of at least one of an individual and a financial account identifying number (48) associated with a respective individual (Paragraph [0100]).

The method further includes the step (c) of providing at least one card to each of a plurality of individuals (Figure 16; Paragraph [0099]). Each card includes machine readable data corresponding to at least one of an individual to whom the card is provided and a financial account identifying number associated with the individual to whom the card is provided (Paragraphs [0111] - [0113]).

The method further includes the step (d) of operating one of a plurality of automated transaction machines (10, 524, 716) (Figures 2, 16, and 18) to:

- (i) read (606) data from a card presented by one of the plurality of individuals to the one machine (Paragraphs [0046], [0047] and [0111]) ;

- (ii) display (612) a visual representation of an electronic document (162, 306, 326, 346) through at least one output device (14, 18, 524) (Figures 1, 2, and 16; Paragraphs [0054] and [0088]) in operative connection with the one machine; and

- (iii) cause the electronic document to be digitally signed (618) (Figure 17; Paragraph [0091]) using a private key (44) retrieved from the at least one data store (34) responsive

to the data read from the card, through communication between the one machine and at least one remote server (32, 710) (Figures 1 and 18) in operative connection with the at least one data store (Paragraphs [0046], [0047] and [0111]).

The at least one remote server (710) is adapted for communication with each of the plurality of automated transaction machines (716).

**(vi) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

The grounds to be reviewed in this appeal are:

whether Appellants' claims 1-20 are indefinite under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Appellants regard as the invention; and

whether Appellants' claims 1-20 are obvious under 35 U.S.C. § 102(b) over Muftic, U.S. Patent No. 5,943,423 in view of Bachman, et al., U.S. Patent No. 6,895,386 ("Bachman").

Additional Note

The statement of the 35 U.S.C. § 112, second paragraph rejection (section 5, page 2 of the Action dated 02/13/2006) only refers to claims 12-20. However, the discussion of the rejection (sections 6-10, pages 2-3) refers to claims 1, 12, 14, 15, and 17. Therefore Appellants presume that the statement of the U.S.C. § 112, second paragraph, rejection includes a typographical error, and that the Office intended to state that claims 1-20 are rejected in view of 35 U.S.C. § 112, second paragraph.

(vii)

## **ARGUMENT**

### **Muftic**

Muftic is directed to a system which uses smart tokens, such as smart cards or PCMCIA cards, to carry out secure business transactions associated with electronic cash, banking, credit, computer and network access, software distribution, medical handling and issuance of credentials. (Abstract). A computer CPU (110) with a card reader (150) is capable of using a smart token to apply a digital signature to an electronic check (Figure 1) (Column 13, lines 45-53).

### **Bachman**

Bachman is directed to a system for purchasing assets on behalf of customers who use credit or ATM cards. (Abstract). Figures 1-3 of Bachman show examples of the logos that may be placed on a credit card or an ATM card. Such logos may represent ATM networks (34, 35) (Figure 3, Column 5, lines 47-49) and financial and corporate institutions (3, 5) which issued the credit card (Figure 1; Column 4, lines 50-60).

## **The 35 U.S.C. § 112, Second Paragraph, Rejections**

Claims 1-20 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellants regard as the invention.. It is assumed that the Action intended to reject claims 1-20 under 35 U.S.C. § 112, second paragraph as the discussion of the rejection also refers to claim 1. The

rejections of claims 1-20 under 35 U.S.C. § 112, second paragraph are improper and should be reversed.

### **Claim 1**

The Action asserts that the phrase "adapted for . . ." makes the claim indefinite and unclear in that neither means nor interrelationship of means are set forth in the claim in order to achieve the desired results expressed in the phrase "adapted for . . ." The Action further states that the phrase "adapted for . . ." is vague in its nature due to that it does not positively recite the action and the steps that need to be performed by the method and steps, it only implies that such steps could be taken and it does not necessary make it so. The Action also states that the claim is rendered to be indefinite and failing to particularly point out what are the steps that must be performed.

Appellants disagree. Nowhere does claim 1 recite "adapted for". Thus the basis for the presumed rejection of claim 1 under 35 U.S.C. § 112, second paragraph is invalid. Therefore, the presumed rejection of claim 1 under 35 U.S.C. § 112, should be reversed.

In addition, claim 1 does recite "adapted to". Such "adapted to" language in a claim corresponds to a functional limitation that defines an element by what it does rather than by what it is. A functional limitation must be evaluated and considered, just like any other limitation of the claims, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. MPEP § 2173.05(g).

Claim 1 recites the step (e) of "digitally signing an electronic document through operation of one of a plurality of automated transaction machines". Step (e) of claim 1 recites that "each

automated transaction machine is adapted to display a visual representation of an electronic document" and "each automated transaction machine is adapted to cause the electronic document to be digitally signed".

Such "adapted to" limitations specify that each automated transaction machine (that is involved with the digitally signing step) has the ability to display a visual representation of an electronic document and cause the electronic document to be digitally signed. These are positive and definite limitations of an element recited in the method step. Therefore these claim features are not vague, indefinite or unclear. Nor do these recited features make the digitally signing step optional as implied by the Action. The Action fails to specify how the language of the claim can be interpreted in any way that is inconsistent with Appellants' interpretation.

Therefore, even if the Office intended to object to the "adapted to" language actually recited in claim 1, Appellants respectfully submit that such language is both definite and clear and the presumed rejection of claim 1 under 35 U.S.C. § 112, second paragraph should be reversed.

### **Claim 12**

The Action asserts that the phrase "adapted for . . ." makes the claim indefinite and unclear in that neither means nor interrelationship of means are set forth in the claim in order to achieve the desired results expressed in the phrase "adapted for . . ." The Action further states that the phrase "adapted for . . ." is vague in its nature due to that it does not positively recite the action and the steps that need to be performed by the method and steps, it only implies that such steps could be taken and it does not necessary make it so. The Action also states that the claim is

rendered to be indefinite and failing to particularly point out what are the steps that must be performed.

The Action also states that the phrase "to be . . ." makes the claims indefinite and unclear in that neither means nor interrelationship of means are set forth in the claim in order to achieve the desired results expressed in the phrase "to be . . ." Appellants disagree with these assertions.

Such "adapted for" language in a claim corresponds to a functional limitation that defines an element by what it does rather than by what it is. A functional limitation must be evaluated and considered, just like any other limitation of the claims, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. MPEP § 2173.05(g).

Claim 12 recites the step (c) of "operating one of the plurality of cash dispensing ATMs to . . . cause the electronic document to be digitally signed responsive to communication by the one ATM with a digital signature service server". Claim 12 also recites in step (c) that the "the digital signature service server is adapted for operative connection with each of the plurality of ATMs". This "adapted for" limitation specifies that the digital signature service server (that is involved in the operating step) includes the ability to operatively connect with each of the plurality of ATMs. This is a positive recitation of an element involved in the step. Therefore this limitation is not vague, indefinite or unclear. Nor does this limitation make any part of step (c) optional as asserted in the Action. The Action provides no support for the assertion that any part of step (c) is optional.

The "to be" phrase in claim 12 must be read in the context of the step in which it is recited, namely "operating one of the plurality of cash dispensing ATMs to . . . cause the electronic document to be digitally signed". This claim terminology specifies that the ATM



operates in a manner which causes digitally signing of the electronic document. This step covers the circumstance where the ATM itself operates to digitally sign the electronic document and the circumstance in which the ATM operates to cause some other device (e.g. the digital signature service server) to digitally sign the electronic document. This step is not optional. In either case, there is an operating step that is carried out, which operating step causes digitally signing of the electronic document. Therefore the "to be" language in claim 12 is not vague, indefinite or unclear.

Appellants respectfully submit that the "adapted for" and "to be" language recited in claim 12 is both definite and clear, and the rejection of claim 12 under 35 U.S.C. § 112, second paragraph should be reversed.

#### **Claim 14**

The Action asserts that the phrase "adapted for . . ." makes claim 14 indefinite and unclear. However, nowhere does claim 14 recite "adapted for". Therefore this basis for the rejection of claim 14 under 35 U.S.C. § 112, second paragraph is improper on its face and should be reversed.

In addition, the Action asserted that the words "to be" in claim 14 makes the claim indefinite and unclear. Appellants respectfully disagree.

Claim 14 recites the step of "causing through operation of the digital signature service server a digital signature to be generated". This recited step specifies that the digital signature service server operates in a manner which causes generation of a digital signature. This step covers the circumstance where the digital signature service server itself operates to generate the

digital signature, as well as the circumstance in which the digital signature service server operates to cause some other device to generate the digital signature. This step is not optional. In either case, there is a causing step that is carried out, which involves operation of the digital signature service server and which generates a digital signature. Therefore the words "to be" in claim 14 do not make the scope of the claim vague, indefinite or unclear.

Therefore the rejection of claim 14 under 35 U.S.C. § 112, second paragraph should be reversed.

### **Claim 15**

The Action asserts that the phrase "adapted for . . ." makes claim 15 indefinite and unclear. However, nowhere does claim 15 recite "adapted for". Therefore this basis for the rejection of claim 15 under 35 U.S.C. § 112, second paragraph should be reversed.

Claim 15 does recite the words "adapted to be". Such "adapted to be" language in a claim corresponds to a functional limitation that defines an element by what it does rather than by what it is. A functional limitation must be evaluated and considered, just like any other limitation of the claims, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. MPEP § 2173.05(g).

The Action also asserts that the phrase "to be" makes the claim indefinite and unclear. Appellants disagree. Claim 15 recites "wherein in (c) the public key of the customer presenting the card to the ATM is adapted to be used to authenticate the digital signature". This "adapted to be" limitation reasonably specifies that the recited element of a public key (as recited in step (c)) has the ability to be used to authenticate a digital signature. Not all public keys can be used to

authenticate all digital signatures. Thus this recited feature is a positive and definite recitation of an element involved in the step. Therefore this limitation is not vague, indefinite or unclear. Nor does this limitation make any part of step (c) optional as implied by the Action.

Therefore the rejection of claim 15 under 35 U.S.C. § 112, second paragraph is improper and should be reversed.

### **Claim 17**

The Action asserts that the phrase "adapted for . . ." makes the claim indefinite and unclear in that neither means nor interrelationship of means are set forth in the claim in order to achieve the desired results expressed in the phrase "adapted for . . ." The Action further asserts that the phrase "adapted for . . ." is vague in its nature due to that it does not positively recite the action and the steps that need to be performed by the method and steps, it only implies that such steps could be taken and it does not necessary make it so. The Action also states that the claim is rendered to be indefinite and failing to particularly point out what are the steps that must be performed. In addition, the Action states that the phrase "to be . . ." makes the claim indefinite and unclear in that neither means nor interrelationship of means are set forth in the claim in order to achieve the desired results expressed in the phrase "to be . . ." Appellants disagree with these assertions.

Such "adapted for" language in a claim corresponds to a functional limitation that defines an element by what it does rather than by what it is. A functional limitation must be evaluated and considered, just like any other limitation of the claims, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. MPEP § 2173.05(g).

Claim 17 recites the step (d) of "operating one of a plurality of automated transaction machines to . . . cause the electronic document to be digitally signed . . . through communication between the one machine and at least one remote server". Claim 17 also recites in step (d) that the "the at least one remote server is adapted for communication with each of the plurality of automated transaction machines". This "adapted for" limitation reasonably specifies that the remote server (that is involved in the operating step) has the ability to communicate with each of the plurality of automated transaction machines. This is a positive recitation of an element in the step. Therefore this limitation is not vague, indefinite or unclear. Nor does this limitation make any part of step (d) optional as implied by the Action. Nor has the Action made any showing how any part of step (d) is optional.

The words "to be" in claim 17 must be read in the context of the step in which they are recited, namely "operating one of a plurality of automated transaction machines to . . . cause the electronic document to be digitally signed". This step reasonably conveys to a person of ordinary skill in the pertinent art that the automated transaction machine operates in a manner which causes digitally signing of the electronic document. This step covers the circumstance where the automated transaction machine itself operates to digitally sign the electronic document, as well as the circumstance in which the ATM operates to cause some other device (e.g. the remote server) to digitally sign the electronic document. This step is not optional. In either case, there is an operating step that is carried out, which operating step causes digitally signing of the electronic document. Therefore the words "to be" in claim 17 are not vague, indefinite or unclear.

Appellants respectfully submit that the "adapted for" and "to be" limitations recited in claim 17 are both sufficiently definite and clear, and the rejection of claim 17 under 35 U.S.C. § 112, second paragraph should be reversed.

## **The 35 U.S.C. § 103 (a) Rejections**

### **The Applicable Legal Standards**

Before a claim may be rejected on the basis of obviousness pursuant to 35 U.S.C. § 103, the Patent Office bears the burden of establishing that all the recited features of the claim are known in the prior art. This is known as *prima facie* obviousness. To establish *prima facie* obviousness, it must be shown that all the elements and relationships recited in the claim are known in the prior art. If the Office does not produce a *prima facie* case, then the Appellants are under no obligation to submit evidence of nonobviousness. MPEP § 2142.

The teaching, suggestion, or motivation to combine the features in prior art references must be clearly and particularly identified in such prior art to support a rejection on the basis of obviousness. It is not sufficient to offer a broad range of sources and make conclusory statements. *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999).

Even if all of the features recited in the claim are known in the prior art, it is still not proper to reject a claim on the basis of obviousness unless there is a specific teaching, suggestion, or motivation in the prior art to produce the claimed combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1568, 1 U.S.P.Q.2d 1593 (Fed. Cir. 1987). *In re Newell*, 891 F.2d 899, 901, 902, 13 U.S.P.Q.2d 1248, 1250 (Fed. Cir. 1989).

The evidence of record must teach or suggest the recited features. An assertion of basic knowledge and common sense not based on any evidence in the record lacks substantial evidence support. *In re Zurko*, 258 F.3d 1379, 59 U.S.P.Q.2d 1693 (Fed. Cir. 2001).

It is respectfully submitted that the Action does not meet these burdens.

**Rejection under 35 U.S.C. § 103(a) over Muftic in view of Bachman**

In the Action claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Muftic in view of Bachman. It is submitted that these rejections are improper and should be reversed.

**Claim 1**

Claim 1 is an independent claim which is directed to a method. Muftic and Bachman do not disclose or suggest each of the features relationships and steps recited in claim 1. Further, Appellants respectfully submit that the applied art does not show a prior art teaching, suggestion, or motivation to combine features to carry out the method recited in claim 1. Thus claim 1 is not obvious over Muftic in view of Bachman and the rejection should be reversed.

For example, neither Muftic nor Bachman disclose or suggest the following features, relationships and steps recited in claim 1:

- **wherein each card includes first visible digital signature service source indicator mark indicia thereon corresponding to a digital signature service;**
- **wherein each automated transaction machine is adapted to cause the electronic document to be digitally signed responsive to communication with the digital signature service;**

- **wherein in signing the electronic document at the one machine the communication includes communicating an account number on a card read by the one automated transaction machine.**

As discussed previously, Muftic is directed to a workstation/computer that is capable of using a smart token to carry out a plurality of business transactions. Such transactions may include applying a digital signature. Muftic teaches digitally signing electronic documents using the two elements of a computer and a smart token.

In contrast, claim 1 recites digitally signing electronic documents using the three elements of an automated transaction machine, a card, and a digital signature service. Nowhere does either Muftic or Bachman disclose or suggest that applying a digital signature to a document is carried out responsive to communication with a digital signature service. Rather, in Muftic a computer includes an application programming interface (Figure 3; Column 11, lines 2-4) which includes the necessary functions for interfacing with a smart token to sign an electronic document (Column 12, lines 31-40). Thus, Muftic only discloses communication between a computer and a smart token to apply digital signatures to an electronic document (Column 13, lines 45-53). Nowhere does either Muftic or Bachman disclose or suggest communication with a digital signature service as specifically recited.

In addition, communication with a digital signature service is also not inherent in Muftic or Bachman. Anticipation by inherency requires that the Patent Office establish that persons skilled in the art would recognize that the missing element is necessarily present in the reference. To establish inherency, the Office must prove through citation to prior art that the feature alleged



to be inherent is "necessarily present" in a cited reference. Inherency may not be established based on probabilities or possibilities. It is plainly improper to reject a claim on the basis of 35 U.S.C. § 102 based merely on the possibility that a particular prior art disclosure could or might be used or operated in the manner recited in the claim. *In re Robertson*, 169 F.3d 743, 49 U.S.P.Q.2d 1949 (Fed. Cir. 1999).

Muftic teaches that a private digital signature key (DSK) file (425) is stored on the smart token (Column 10, lines 7-10) and that the function needed to generate a signature is included in the application programming interface of the computer which accesses the smart token (Column 12, lines 36-37). Thus, Muftic teaches that all of the features (keys, functions) needed to sign an electronic document are located on the smart token and computer. Communication with a digital signature service for purposes of causing an electronic document to be signed is not required and therefore is not inherent in Muftic.

In addition, claim 1 also recites that this communication with the digital signature service includes communicating an account number on a card read by the one automated transaction machine. Nowhere does Muftic or Bachman disclose or suggest this feature. In Muftic a smart token may include checking data stored on the token which is dedicated to maintaining information about a single checking account (Column 13, lines 11-13). Nowhere does Muftic disclose or suggest communicating an account number read from a card to a digital signature service. Further, nowhere does Muftic disclose or suggest communicating an account number read from a card for purposes of causing an electronic document to be digitally signed.

Claim 1 also recites producing at least one card, wherein each card includes first visible digital signature service source indicator mark indicia thereon, corresponding to the digital

signature service. Nowhere does Muftic or Bachman disclose or suggest this feature. Muftic shows a visual view of a smart token (360) in Figure 3. However, this visual view does not include a visible digital signature service source indicator mark indicia thereon. The Action also references: Column 3, lines 45 to column 4, line 17; Column 9, line 45, to column 10, line 62; and Column 12, line 65, to column 14, line 36, with respect to this step. These referenced portions of Muftic disclose data that is stored in, and not visible indicia included on, the smart token. Nowhere in Muftic is there described what, if any, visible indicia is included on the smart token.

As discussed in Appellants' Specification at Paragraph [0103], this recited digital signature service indicia on the card may be a logo or trademark for a digital signature service. Although Bachman shows a credit/debit card (1) with visible indicia thereon (Figures 1 and 2), such indicia is directed to credit and debit card information (e.g., institution's name that issued the credit card (2), logo representing the issuing financial institution (3)). Bachman does not disclose or suggest card indicia corresponding to a digital signature service source indicator mark.

As recited in step (e) of claim 1, Appellants' automated transaction machine communicates the account data read from the card with the digital signature service for purposes of causing an electronic document to be digitally signed. Nowhere does Muftic or Bachman disclose or suggest placing a trademark, logo, or any other source indicator mark of a digital signature service on a card. Further, nowhere does Muftic or Bachman disclose or suggest a method in which a card with a digital signature service source indicator mark indicia thereon, is both produced for a customer and used by the customer at an automated transaction machine to

cause an electronic document to be digitally signed through communication with a digital signature service.

The Action asserts that ATMs bear multiple markings for financial areas such as "Visa, Master Card, Amex, Plus, or Cirrus" and refers to U.S. Patent No. 6,336,590 ("Kubitz") to support this assertion. The Action also asserts that, "[W]hen a user visits a web site (Such as Amazon.com or Dell.com or any online merchants or service providers) and wants to conduct a purchase or any other transaction online, such markings are provided to inform the user that they may use their credit cards such as MasterCard or Visa . . .". However, regardless of whether it is known to place logos or markings for financial services on ATMs, web sites or cards, such financial service logos or markings do not by themselves, or in combination with Muftic or Bachman, provide a prior art teaching, suggestion or motivation to provide logos or trademarks for a digital signature service. How can there be such a teaching, suggestion, or motivation, when Muftic, Bachman and Kubitz do not disclose or suggest a digital signature service? Nowhere has the Action shown where a card with any form of digital signature service source indicator exists in the prior art. Nor has Action provided any prior art teaching, suggestion, or motivation to modify the cards in Muftic to include such indicia.

The Action's attempts to combine features of the cited reference of Muftic with the alleged teachings of Bachman, ATMs and web sites, are clearly attempts at hindsight reconstruction of Appellants' claimed invention, which is legally impermissible and does not constitute a valid basis for a finding of obviousness. *In re Fritch*, 22 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The rejections, which lack the necessary evidence and rationale, are based on knowledge gleaned only from Appellants' disclosure.

As previously discussed, the applied art does not disclose or suggest the features, relationships, and steps that are specifically recited in claim 1. Thus, a *prima facie* case of obviousness has not been established. On this basis and because there is no prior art teaching, suggestion or motivation cited for combining features of the cited references so as to produce Appellants' invention, it is respectfully submitted that claim 1 recites patentable subject matter. It is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 1 should be reversed. It follows that the rejections of claims 2-11 which depend from claim 1 should also be reversed.

## **Claim 2**

Claim 2 depends from claim 1 and recites that the method further comprises labeling each of the plurality of automated transaction machines with second visible digital signature service source indicator mark indicia.

Nowhere does Muftic or Bachman (or Kubitz) disclose or suggest labeling an automated transaction machine with **visible digital signature service source indicator mark indicia**. Further nowhere does Muftic or Bachman (or Kubitz) disclose or suggest reading a card at such a machine where the card and the machine both include **visible digital signature service source indicator mark indicia**. Thus, the Office has not established *prima facie* obviousness with respect to claim 2.

In addition, the Action appears to admit that Muftic does not teach markings visible to the user at the terminal performing a transaction. However, the Action appears to assert that Bachman teaches a variety of purposes for visible markings such as logos or trademarks that are placed on the card as well as the ATM/CAT (See Bachman Figures 1-3 and Column 5, lines 41-

49)." The Action also refers to Kubitz regarding ATMs and cards bearing logos and asserts that "it would have been obvious . . . to place indicia indicating markings of the entity, providing service to the user to make sure that the user is communicating with the appropriate certifying authority providing the services". Appellants disagree.

In both Bachman and Kubitz, the logos and trademarks on ATMs and/or cards are all directed to financial or banking services. Examples of such logos or trademarks on ATMs and/or cards shown in Bachman and Kubitz include logos and trademarks for financial clearing houses such as Star, Mac, Plus, and Explore (Kubitz, Column 1, lines 31-42) or ATM networks (34,35) (Bachman, Figure 3, Column 5, lines 47-49); and logos for financial and corporate institutions (3, 5) which issued the credit card (Bachman; Figure 1; Column 4, lines 50-60).

Neither Muftic nor Bachman (nor Kubitz) disclose or suggest placing logos or trademarks on terminals or cards for a digital signature service. Thus neither Muftic nor Bachman (nor Kubitz) provide any teaching, suggestion, or motivation to provide trademarks or logos for digital signature service on ATMs and cards. It follows that in view of the applied art, it would not be obvious to one having ordinary skill in the art at the time the present invention was made to label a plurality of automated transaction machines with visible digital signature service source indicator mark indicia. It follows that the 35 U.S.C. § 103(a) rejection of claim 2 should be reversed.

### **Claim 3**

Claim 3 depends from claim 2 and recites that the second visible digital signature service source indicator mark indicia is labeled at least one of on and adjacent a fascia of each of the automated transaction machines. Claim 3 also recites that in step (e) the first visible digital

signature service source indicator mark indicia on the card and the second visible digital signature service source indicator mark indicia on the one machine are visually similar.

Nowhere does Muftic or Bachman disclose or suggest labeling **visible digital signature service source indicator mark indicia on or adjacent a fascia of the automated transaction machines**. Further nowhere does Muftic or Bachman disclose or suggest that a first visible digital signature service source indicator mark indicia included on a card, and a second visible digital signature service source indicator mark indicia on an automated transaction machine **are visually similar**. Thus, the Office has not established *prima facie* obviousness with respect to claim 3.

In addition, as discussed previously Muftic does not disclose or suggest trademarks and logos on automated transaction machines. Further Bachman (and Kubitz) only discloses financial service related logos and trademarks on ATMs. Also, none of the applied art even discloses or suggests a digital signature service. Thus the applied art does not include a prior art teaching, suggestion, or motivation to either: label visible digital signature service source indicator mark indicia on or adjacent a fascia of the automated transaction machines; or have visually similar visible digital signature service source indicator mark indicia on both cards and automated transaction machines. It follows that the 35 U.S.C. § 103(a) rejection of claim 3 is improper and should be reversed.

#### **Claim 4**

Claim 4 depends from claim 1 and recites that in step (a) each digital certificate includes a public key that corresponds to a private key. Claim 4 also recites that in step (e)

communication with the digital signature service causes the electronic document to be digitally signed responsive to a private key that corresponds to a public key of a digital certificate associated with the account corresponding to the account number read from the card by the one machine.

Nowhere does Muftic or Bachman disclose or suggest communicating with a digital signature service to cause an electronic document displayed by the automated transaction machine to be digitally signed. Nor do such references teach or suggest that such a displayed electronic document is digitally signed responsive to the private key that corresponds to the public key of the digital certificate which is associated with the account of the individual customer using the automated transaction machine.

As discussed previously, Muftic teaches that the private digital signature key (DSK) file (425) (Column 10, lines 7-11) is stored on the smart token. Thus Muftic does not disclose or suggest any need to communicate with a digital signature service to cause an electric document displayed by an automated transaction machine to be digitally signed responsive to a private key.

As nothing in the applied art discloses or suggests these recited features and relationships, it is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 4 should be reversed.

### **Claim 5**

Claim 5 depends from claim 1 and recites that in step (e) the digital signature service is operative to access a private key associated with the account number read from the card. The digital signature service causes the electronic document to be digitally signed responsive to the private key.

Nowhere does Muftic or Bachman disclose or suggest a digital signature service that is **operative to access a private key associated with the account number read from the card.**

Further nowhere does Muftic or Bachman disclose or suggest a digital signature service that causes the electronic document to be digitally signed by an automated transaction machine responsive to the private key associated with the account number read from a card. Thus, the Office has not established *prima facie* obviousness with respect to claim 5.

As discussed previously, Muftic teaches that a private digital signature key (DSK) file (425) (Column 10, lines 7-11) is stored on the smart token. In addition Muftic teaches storing checking account information including an account number (Column 13, lines 11-16) on the smart token. However, even though both a private digital signature key and checking account information may be stored on the same smart token, Muftic does not disclose or suggest any association between the private digital signature key and the account information which enables a digital signature service to access the private signature key. Nowhere does Muftic disclose or suggest that the checking account information is ever needed to access the private signature key on the smart token. Indeed both are on the smart token.

There is nothing in Muftic which would suggest that the private signature key and the checking account information stored on the smart token can not be accessed and/or used independently of each other. For example, even if the account number of Muftic is read from the smart token, nowhere does Muftic disclose or suggest any need for digital signature service to access a private key associated with the account number read from the card. The private signature key is already on the card and available to be used by the terminal and smart token to sign electronic documents whether or not an account number is read from the card. Thus Muftic



does not provide any teaching, suggestion or motivation to have a digital signature service access a private key associated with the account number (read from the card and communicated to the digital signature service) for purposes of digitally signing an electronic document.

It follows that the 35 U.S.C. § 103(a) rejection of claim 5 should be reversed.

#### **Claim 6**

Claim 6 depends from claim 1 and recites that in step (c) each of the cards produced correspond to financial account cards. The accounts correspond to financial accounts. Nowhere does Muftic or Bachman disclose or suggest producing cards with a digital signature service source indicator mark indicia thereon, which are **financial account cards**. Thus, the Office has not established *prima facie* obviousness with respect to claim 6.

In addition the Action asserts that "it would have been obvious . . . to interconnect the financial account information of a user to associate with certification authority of the public/private key management system, they might even be the same for the reason that makes a single token more controllable and in addition it would be beneficial to only use one card or smart token to conduct multiple transaction rather than having multiple cards associated with multiple entities for conducting secure transaction." The Action further points to Paltenche, et al., U.S. Application Publication No. 2002/0004783 ("Paltenche").

Appellants disagree with these assertions. Muftic, Bachman, and Paltenche alone or in combination do not support the assertions made in the Action. For example, neither reference discloses or suggests to "interconnect the financial account information of a user to associate with certification authority of the public/private key management system . . ." as asserted in the

Action. Nowhere do these references disclose or suggest communicating an account number read from a financial account card to facilitate signing an electronic document.

Further, the teaching, suggestion, or motivation to combine the features in prior art references must be clearly and particularly identified in such prior art to support a rejection on the basis of obviousness. It is not sufficient to offer a broad range of sources and make conclusory statements. *In re Dembiczak*, supra.

The applied references do not disclose or suggest the recited features relationships and steps of claim 6. Thus it is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 6 should be reversed.

#### **Claim 7**

Claim 7 depends from claim 6 and recites that the method further comprises operating the one automated transaction machine to cause a processing fee to be assessed to a customer associated with the card read by the one automated transaction machine for the digital signing of the electronic document. Claim 7 also recites that the method further comprises a step (f) of providing through operation of at least one computer to an entity that manages a financial account for the customer, at least a portion of the processing fee.

Nowhere do the applied references disclose or suggest operating an automated transaction machine to cause a processing fee to be assessed to a customer associated with the card read by the automated transaction machine, for the digital signing of the electronic document. In addition nowhere do the applied references disclose or suggest, providing through operation of at least one computer to an entity that manages a financial account for the customer, at least a

portion of the processing fee assessed for the digital signing of the electronic document. Thus, the Office has not established *prima facie* obviousness with respect to claim 7.

The Action appears to be arguing that because, Muftic, Chen, (U.S. Patent Application Publication No. 2002/0032656), and the Examiner's apparent experiences with SunTrust bank and Bank of America ATMs (which are not properly of record), allegedly teach various service fees associated with financial transactions, that it would be "obvious to have added such fee structure to the current Muftic's system and method. Appellants disagree. No prior art of record provides any teaching, suggestion, or motivation to assess processing fees for digital signing electronic documents.

Nowhere does Muftic or any other cited art, disclose or suggest ever causing processing fees to be assessed for the digital signing of electronic documents. Thus, nowhere does Muftic or any other cited art, provide any teaching, suggestion or motivation for **an entity that manages the financial account for an individual customer to receive at least a portion of the processing fees assessed for the digital signing of electronic documents.**

As nothing in the applied art discloses or suggests these recited features and relationships, it is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 7 should be reversed.

### **Claim 8**

Claim 8 depends from claim 1 and recites that the one automated transaction machine includes a digitizing signature pad. Claim 8 also recites that the method further comprises operating the one automated transaction machine to include handwritten signature data captured with the digitizing signature pad in association with the electronic document.

Nowhere does Muftic or Bachman disclose or suggest that automated transaction machines **include digitizing signature pads**. Further nowhere does Muftic and Bachman disclose or suggest that automated transaction machines are operative to associate handwritten signature data captured with the digitizing signature pads with the electronic documents that are digitally signed. The Office has not established *prima facie* obviousness with respect to claim 8.

Further, the Action admits that Muftic does not disclose or suggest that automated transaction machines are operative to include handwritten signature data captured with the digitizing signature pads in the electronic documents. The Action's assertions regarding it being obvious to combine Muftic with devices for capturing handwritten signatures is not supported by the evidence of record. An assertion of prior art knowledge not based on any evidence in the record lacks substantial evidence support. *In re Zurko*, 258 F.3d 1379, 59 U.S.P.Q.2d 1693 (Fed. Cir. 2001). The determination of patentability must be based on evidence of record. *In re Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Appellants respectfully submit that because the rejection is based on mere assertions and not proper evidence of record, it is not a legally valid rejection.

As nothing in the applied art discloses or suggests these recited features and relationships, it is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 8 should be reversed.

### **Claim 9**

Claim 9 depends from claim 1 and recites that the one automated transaction machine includes a cash dispenser. Claim 9 also recites that the method further comprises operating the one automated transaction machine to dispense cash.

Nowhere does Muftic or Bachman disclose or suggest digitally signing an electronic document through operation of an automated transaction machine, where the automated transaction machine **includes a cash dispenser** that is operative to dispense cash. Further, column 4, lines 31-40 of Muftic clearly teaches away from using automated teller machines (ATMs) with the system described in Muftic by teaching that there is an inconvenience associated with physically traveling to a nearby ATM in order to obtain banking services. By teaching away from using ATMs (which may include cash dispensers to provide banking services), Muftic teaches away from digitally signing an electronic document through operation of an automated transaction machine, where the automated transaction machine **includes a cash dispenser** that is operative to dispense cash.

A reference teaching away from the recited invention does not support *prima facie* obviousness. It is improper to reconstruct the invention from the disclosure of the Appellants. An obviousness rejection cannot be based on a combination of features in references if making the combination would result in destroying the utility or advantage of the device shown in the prior art references. Note *In re Fine* 5 U.S.P.Q.2d 1598-99 (*Fed. Cir. 1988*).

For these reasons, it is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 9 should be reversed.

#### **Claim 10**

Claim 10 depends from claim 9 and recites that in step (c) the cards correspond to bank cards and the accounts correspond to banking accounts. Claim 10 also recites that in step (e) each of the plurality of automated transaction machines include a cash dispenser. In addition, claim

10 recites that the method further comprises operating the automated transaction machines to dispense cash withdrawn from the banking accounts.

Nowhere does Muftic or Bachman disclose or suggest **bank cards which include a first visible digital signature service source indicator mark indicia thereon**. Nowhere does Muftic or Bachman disclose or suggest bank cards which include machine readable data corresponding to banking accounts, with first visible digital signature service source indicator mark indicia thereon. In addition, nowhere does Muftic or Bachman disclose or suggest that **automated transaction machines which include cash dispensers are operative to digitally sign an electronic document displayed by the automated transaction machine**. Nowhere does Muftic or Bachman disclose or suggest that automated transaction machines which are operative to dispense cash withdrawn from banking accounts, are also operative to digitally sign electronic documents visually displayed by the automated transaction machines.

The Action asserts that "it would have been obvious . . . to interconnect the financial account information of a user to associate with certification authority of the public/private key management system, they might even be the same for the reason that makes a single token more controllable and in addition it would be beneficial to only use one card or smart token to conduct multiple transaction rather than having multiple cards associated with multiple entities for conducting secure transaction." The Action further points to Paltenche, et al., U.S. Application Publication No. 2002/0004783 ("Paltenche").

Appellants disagree with these assertions. Muftic, Bachman, and Paltenche alone or in combination do not support the assertions made in the Action. For example, neither reference discloses or suggests to "interconnect the financial account information of a user to associate

with certification authority of the public/private key management system . . ." as asserted in the Action. Nowhere do these references disclose or suggest communicating an account number read from a bank card to facilitate signing an electronic document.

Further, column 4, lines 31-40 of Muftic clearly teaches away from using automated teller machines (ATMs) with the system described in Muftic by teaching that there is an inconvenience associated with physically traveling to a nearby ATM machine in order to obtain banking services. By teaching away from using ATMs (which may include cash dispensers), Muftic teaches away from digitally signing an electronic document through operation of an automated transaction machine, where the automated transaction machine **includes a cash dispenser** that is operative to dispense cash. Also by teaching away from using ATMs, Muftic teaches away from using an automated transaction machine including a cash dispenser to both digitally sign electronic documents and dispense cash. Further Muftic teaches away from using an automated transaction machine including a cash dispenser to both communicate an account number of a banking account read from a bank card to a digital signature service, and to dispense cash withdrawn from the banking account.

Thus, the Office has not established *prima facie* obviousness with respect to claim 10. For these reasons, it is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 10 should be reversed.

#### **Claim 11**

Claim 11 depends from claim 1 and recites that in step (a) the accounts correspond to digital safe deposit accounts and in step (c) the cards correspond to digital safe deposit account

cards. The Action references various portions of Muftic which Appellants assume the Office believes to be relevant to claim 11. For example the Action references Figures 14, 25, and 25-26; Column 2, lines 53-59; Column 4, lines 39-51; and Column 11, lines 37-38 of Muftic which discloses the ability of the Muftic system to generate and securely store documents on one or more smart tokens.

Although Muftic discloses storing documents on smart tokens, neither Muftic nor Bachman disclose or suggest producing digital safe deposit cards with machine readable indicia corresponding to digital safe deposit accounts.

The Action also refers to online repositories allegedly offered by "Yahoo, Hotmail, or ISPs" to support the rejection. However, as discussed previously, an assertion of prior art knowledge not based on any evidence in the record lacks substantial evidence support. *In re Zurko*, supra. The determination of patentability must be based on evidence of record. *In re Lee*, supra. Appellants respectfully submit that because the rejection is based on mere assertions and not proper evidence of record, it is not a valid rejection.

In addition, even if it were possible to modify Muftic to include an online repository, the presence of an online repository in Muftic still does not disclose or suggest the features recited in claim 11. For example, nowhere does Muftic (or Muftic in view of the unsupported assertions about Yahoo, Hotmail, or ISPs) disclose or suggest producing cards with a first visible digital signature service source indicator mark indicia thereon and **machine readable data corresponding to digital safe deposit accounts**. Further nowhere does Muftic disclose or suggest producing cards with a first visible digital signature service source indicator mark indicia thereon, which cards correspond to **digital safe deposit account cards**.



As nothing in the applied art discloses or suggests these recited features and relationships, it is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 11 should be reversed.

### **Claim 12**

Claim 12 is an independent claim which is directed to a method. Appellants respectfully submit that Muftic and Bachman do not disclose or suggest each of the features relationships and steps recited in claim 12. Further, Appellants respectfully submit that the applied art does not show a prior art teaching, suggestion, or motivation to carry out the method recited in claim 12. Thus claim 12 is not obvious over Muftic in view of Bachman and the rejection should be reversed.

For example neither Muftic nor Bachman disclose or suggest the following features, relationships and steps recited in claim 12:

- **providing at least one card to each of a plurality of individual customers, wherein each card includes a visible digital signature service source indicator mark thereon;**
- **providing on each of a plurality of cash dispensing ATMs a visible digital signature service source indicator mark that visually corresponds to the digital signature service source indicator mark included on the cards;**
- **operating one of the plurality of cash dispensing ATMs to . . . output a visual representation of an electronic document through at least one output device in operative connection with the one ATM;**

- **operating one of the plurality of cash dispensing ATMs to . . . cause the electronic document to be digitally signed responsive to communication by the one ATM with a digital signature service server;**
- **wherein the digital signature service server is adapted for operative connection with each of the plurality of ATMs;**
- **wherein the communication includes communicating from the one ATM to the digital signature service server, the at least one account identifying number corresponding to the data read from the card by the one ATM.**

As discussed previously, Muftic is directed to a workstation/computer that is capable of using a smart token to carry out a plurality of business transactions. Such transactions may include applying a digital signature. Muftic thus teaches digitally signing electronic documents using the two elements of a computer and a smart token.

In contrast, claim 12 specifically recites digitally signing electronic documents using the three elements of: cash dispensing ATMs, cards, and a digital signature service server. Nowhere does either Muftic or Bachman disclose or suggest causing an electronic document to be digitally signed responsive to communication by an ATM with a digital signature service server. Rather, in Muftic the workstation includes an application programming interface (Figure 3; Column 11, lines 2-4) which includes the necessary functions for interfacing with a smart token to sign an electronic document (Column 12, lines 31-40). Thus, Muftic only discloses communication

between a computer and a smart token to apply digital signatures to an electronic document (Column 13, lines 45-53). Nowhere does either Muftic or Bachman disclose or suggest communication with a digital signature service server.

Communication with a digital signature service server is also not inherent in Muftic or Bachman. Muftic teaches that a private digital signature key (DSK) file (425) is stored on the smart token (Column 10, lines 7-10) and that the function needed to generate a signature is included in the application programming interface of the computer which accesses the smart token (Column 12, lines 36-37). Thus, Muftic teaches that all of the features (keys, functions) needed to sign an electronic document are located on the smart token and computer. Communication with a digital signature service server for purposes of causing an electronic document to be digitally signed is not required, and therefore is not inherent in Muftic.

In addition, claim 12 also recites that this communication with the digital signature service server includes communicating from the one ATM to the digital signature service server, the at least one account identifying number corresponding to the data read from the card by the one ATM. Nowhere does Muftic or Bachman disclose or suggest this feature. In Muftic a smart token may include checking data stored thereon which is dedicated to maintaining information about a single checking account (Column 13, lines 11-13). Although, an account number may be stored on the smart token, nowhere does Muftic disclose or suggest communicating an account number read from a card to a digital signature service. Further nowhere does Muftic disclose or suggest communicating an account number read from a card for purposes of causing an electronic document to be digitally signed.

Claim 12 also recites providing at least one card to each of a plurality of individual customers, wherein each card includes a visible digital signature service source indicator mark thereon. Nowhere does Muftic or Bachman disclose or suggest this feature. Muftic shows a visual view of a smart token (360) in Figure 3. However, this visual view does not include a visible digital signature service source indicator mark indicia thereon. The Action also references: Column 3, lines 45 to column 4, line 17; Column 9, line 45 to column 10, line 62; and Column 12, line 65 to column 14, line 36 with respect to this step. These referenced portions of Muftic disclose data that is stored in, and not visible indicia included on, the smart token. Nowhere in Muftic is there described what, if any, visible indicia is included on the smart token.

As discussed in Appellants' Specification at Paragraph [0103] this recited indicia on the card may be a logo or trademark for a digital signature service. Although Bachman shows a credit/debit card (1) with visible indicia thereon (Figures 1 and 2), such indicia is directed to credit and debit card information (e.g., institution's name that issued the credit card (2), logo representing the issuing financial institution (3)). Bachman does not disclose or suggest card indicia corresponding to a digital signature service source indicator mark.

As recited in step (c) of claim 12, the ATM communicates to the digital signature service server, the at least one account identifying number corresponding to the data read from a card that includes a visible digital signature service source indicator mark thereon. Nowhere do Muftic or Bachman disclose or suggest placing a trademark, logo, or any other source indicator mark of a digital signature service on a card. Further, nowhere does Muftic or Bachman disclose or suggest a method in which a card with a digital signature service source indicator mark indicia thereon, is both provided to a customer and used by the customer to operate an ATM to cause an

electronic document to be digitally signed through communication with a digital signature service.

Claim 12 also recites providing on each of a plurality of cash dispensing ATMs, a visible digital signature service source indicator mark that visually corresponds to the digital signature service source indicator mark included on the cards. Nowhere does Muftic or Bachman disclose or suggest this feature.

With respect to these recited features, the Action appears to admit that Muftic does not teach markings visible to the user at the terminal performing a transaction. However, the Action appears to assert that Bachman teaches a variety of purposes for visible markings such as logos or trademarks that are placed on the card as well as the ATM/CAT (See Bachman Figures 1-3 and Column 5, lines 41-49)." The Action also asserts that "when a user visits a web site (Such as Amazon.com or Dell.com or any online merchants or service providers) and wants to conduct a purchase or any other transaction online, such markings are provided to inform the user that they may use their credit cards such as MasterCard or Visa . . .". The Action also refers to Kubitz regarding ATMs and cards bearing logos and asserts that "it would have been obvious . . . to place indicia indicating markings of the entity, providing service to the user to make sure that the user is communicating with the appropriate certifying authority providing the services". Appellants disagree.

Regardless of whether it is known to place logos or markings for financial services on ATMs, web sites or cards, such financial service logos or markings do not by themselves or in combination with Muftic or Bachman provide a prior art teaching, suggestion or motivation to provide logos or trademarks for a digital signature service. How can there be such a teaching,

suggestion, or motivation, when Muftic Bachman and Kubitz, do not disclose or suggest a digital signature service?

In both Bachman and Kubitz, the logos and trademarks on ATMs and/or cards are all directed to financial or banking services. Examples of such logos or trademarks on ATMs and/or cards shown in Bachman and Kubitz include logos and trademarks for financial clearing houses such as Star, Mac, Plus, and Explore (Kubitz, Column 1, lines 31-42) or ATM networks (34, 35) (Bachman, Figure 3, Column 5, lines 47-49); and logos for financial and corporate institutions (3, 5) which issued the credit card (Bachman; Figure 1; Column 4, lines 50-60).

Neither Muftic nor Bachman (nor Kubitz) disclose or suggest placing logos or trademarks on terminals or cards for a digital signature service. Thus neither Muftic nor Bachman (nor Kubitz) provide any teaching, suggestion, or motivation to provide trademarks or logos for a digital signature service on ATMs and cards. Nowhere has the Action shown where a card with any form of digital signature service source indicator exists in the prior art. Nor has Action provided any prior art teaching, suggestion, or motivation to modify the cards in Muftic to include such indicia. Nowhere has the Action shown where a cash dispensing ATM with any form of digital signature service source indicator exists in the prior art. Nor has Action provided any prior art teaching or suggestion to modify either computer in Muftic or a cash dispensing ATM to include such indicia.

The Action's attempts to combine features of Muftic with the alleged teachings of Bachman, ATMs and web sites, are clearly attempts at hindsight reconstruction of Appellants' claimed invention, which is legally impermissible and does not constitute a valid basis for a finding of obviousness. *In re Fritch*, 22 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The rejections,

which lack the necessary evidence and rationale, are based on knowledge gleaned only from Appellants' disclosure.

In addition claim 12 recites various features of a cash dispensing ATM which are not disclosed or suggested by the applied art. For example, claim 12 recites operating a cash dispensing ATM to output a visual representation of an electronic document through at least one output device in operative connection with the ATM. Claim 12 also recites operating the cash dispensing ATM to cause the electronic document to be digitally signed responsive to communication by the one ATM with a digital signature service server. Nowhere does Muftic or Bachman disclose or suggest a cash dispensing ATM that operates to cause an electronic document displayed through an output device of the ATM to be digitally signed. Further nowhere does Muftic disclose or suggest an ATM that communicates with a digital signature service server.

Further, column 4, lines 31-40 of Muftic clearly teaches away from using ATMs with the system described in Muftic by teaching that there is an inconvenience associated with physically traveling to a nearby ATM machine in order to obtain banking services. By teaching away from using ATMs, Muftic teaches away from operating a cash dispensing ATM to cause an electronic document displayed by the ATM to be digitally signed.

A reference teaching away from the recited invention does not support *prima facie* obviousness. It is improper to reconstruct the invention from the disclosure of the Appellants. An obviousness rejection cannot be based on a combination of features in references if making the combination would result in destroying the utility or advantage of the device shown in the prior art references. Note *In re Fine* 5 U.S.P.Q.2d 1598-99 (Fed. Cir. 1988).

As previously discussed, the applied art does not disclose or suggest the features, relationships, and steps that are specifically recited in claim 12. Thus, a *prima facie* case of obviousness has not been established. On this basis and because there is no prior art teaching, suggestion or motivation cited for combining features of the cited references so as to produce Appellants' invention, it is respectfully submitted that claim 12 is allowable for these reasons. It is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 12 should be reversed. It follows that the rejections of claims 13-16 which depend from claim 12 should also be reversed.

### **Claim 13**

Claim 13 depends from claim 12 and recites that in (a) each account identifying number corresponds to a financial account number, and each card comprises at least one of a credit card, debit card and a bank card. Nowhere do the applied references disclose or suggest causing an electronic document to be digitally signed responsive to communicating a financial account number read by an ATM from a credit card, debit card or a bank card. Thus, the Office has not established *prima facie* obviousness with respect to claim 13.

In addition the Action asserts that "it would have been obvious . . . to interconnect the financial account information of a user to associate with certification authority of the public/private key management system, they might even be the same for the reason that makes a single token more controllable and in addition it would be beneficial to only use one card or smart token to conduct multiple transaction rather than having multiple cards associated with multiple entities for conducting secure transaction." The Action further points to Paltenche, et al., U.S. Application Publication No. 2002/0004783 ("Paltenche").



Appellants disagree with these assertions. Muftic, Bachman, and Paltenche alone or in combination do not support the assertions made in the Action. For example, neither reference discloses or suggests to "interconnect the financial account information of a user to associate with certification authority of the public/private key management system . . ." as asserted in the Action. Nowhere do these references disclose or suggest using data read from a credit card, debit card or a bank card to facilitate signing an electronic document.

Further, the teaching, suggestion, or motivation to combine the features in prior art references must be clearly and particularly identified in such prior art to support a rejection on the basis of obviousness. It is not sufficient to offer a broad range of sources and make conclusory statements. *In re Dembiczak*, supra.

The applied references do not disclose or suggest the recited features relationships and steps of claim 13. Thus it is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 13 should be reversed.

#### **Claim 14**

Claim 14 depends from claim 12 and recites that the method further comprises: prior to (c), generating through operation of at least one computer a private key and a corresponding public key for each of the plurality of individual customers. Claim 14 further recites that the method comprises: prior to (b), storing the private keys in at least one data store through operation of at least one computer, wherein each private key is stored in correlated relation with a financial account number associated with the respective individual customer. Nowhere do the applied references disclose or suggest these steps.

As discussed previously the private signature key in Muftic is stored on the smart token itself not in separate data store. Nowhere does Muftic or Bachman disclose or suggest storing a plurality of private keys in a data store. Although both a single private digital signature key (DSK) and checking account information are stored on the smart token of Muftic, nowhere does Muftic disclose storing a plurality of private digital signature keys, with each key stored in correlated relation with a checking account number or any other financial account number.

The applied references do not disclose or suggest the recited features relationships and steps of claim 14. Thus it is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 14 should be reversed.

#### **Claim 15**

Claim 15 depends from claim 14 and recites that the method further comprises: producing through operation of at least one computer at least one digital certificate for each of the plurality individual customers. Each digital certificate includes the respective public key generated in (d) for the respective customer. In addition claim 15 recites that in (c) the public key of the customer presenting the card to the ATM is adapted to be used to authenticate the digital signature with which the electronic document has been signed using the respective corresponding private key.

Nowhere do the applied reference disclose or suggest producing a plurality of digital certificates for individual customers which can be used to authenticate digital signatures produced through operation of cash dispensing ATMs. On this basis, it is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 15 should be reversed.

### **Claim 16**

Claim 16 depends from claim 12 and recites in (b) that each of the plurality of ATMs includes a digitizing signature pad, and that in (c) the one ATM is operative to cause handwritten signature data to be captured from the customer with a digitizing signature pad. Claim 16 also recites that the one ATM is operative to cause the handwritten signature data to be associated with the electronic document digitally signed through operation of the one ATM.

Nowhere does Muftic or Bachman disclose or suggest a cash dispensing ATM that includes a digitizing signature pad. Further nowhere does Muftic and Bachman disclose or suggest an ATM that is operative to associate handwritten signature data captured with the digitizing signature pad with the electronic documents that are digitally signed. The Office has not established *prima facie* obviousness with respect to claim 8.

Further, the Action admits that Muftic does not disclose or suggest that ATMs are operative to include handwritten signature data captured with the digitizing signature pads in the electronic documents. The Action's assertions regarding it being obvious to combine Muftic with devices for capturing handwritten signatures is not supported by the evidence of record. An assertion of prior art knowledge not based on any evidence in the record lacks substantial evidence support. *In re Zurko*, 258 F.3d 1379, 59 U.S.P.Q.2d 1693 (Fed. Cir. 2001). The determination of patentability must be based on evidence of record. *In re Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Appellants respectfully submit that because the rejection is based on mere assertions and not proper evidence of record, it is not a legally valid rejection.

As nothing in the applied art discloses or suggests these recited features and relationships, it is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 16 should be reversed.

### **Claim 17**

Claim 17 is an independent claim which is directed to a method. Appellants respectfully submit that Muftic and Bachman do not disclose or suggest each of the features relationships and steps recited in claim 17. Further, Appellants respectfully submit that the applied art does not show a prior art teaching, suggestion, or motivation to carry out the method recited in claim 17. Thus claim 17 is not obvious over Muftic in view of Bachman and the rejection should be reversed.

For example neither Muftic nor Bachman disclose or suggest the following features, relationships and steps recited in claim 17:

- **storing data corresponding to each of the private keys . . . in at least one data store;**
- **wherein the data corresponding to each private key is stored in correlated relation with data representative of at least one of an individual and a financial account identifying number associated with a respective individual;**
- **operating one of a plurality of automated transaction machines to . . . cause the electronic document to be digitally signed using a private key retrieved from the at least one data store responsive to the data read from the card, through communication between the one machine and at least one remote server;**

- **at least one remote server in operative connection with the at least one data store;**
- **wherein the at least one remote server is adapted for communication with each of the plurality of automated transaction machines.**

As discussed previously, Muftic is directed to a workstation/computer that is capable of using a smart token to carry out a plurality of business transactions. Such transactions may include applying a digital signature. Muftic thus teaches digitally signing electronic documents using the two elements of a computer and a smart token.

In contrast, claim 17 recites digitally signing electronic documents using the four elements of: automated transaction machines, cards, a remote server, and a data store of private keys in operative connection with the remote server. Nowhere does either Muftic or Bachman disclose or suggest operating an automated transaction machine to communicate with a remote server to cause an electronic document to be digitally signed using a private key retrieved from a data store responsive to data read from a card.

In Muftic the workstation includes an application programming interface (Figure 3; Column 11, lines 2-4) which includes the necessary functions for interfacing with a smart token to sign an electronic document (Column 12, lines 31-40). Further, Muftic teaches that a private digital signature key (DSK) file (425) is stored on the smart token (Column 10, lines 7-10). Thus, Muftic only discloses communication between a computer and a smart token to apply digital signatures to an electronic document (Column 13, lines 45-53). Nowhere does either Muftic or Bachman disclose or suggest communication between an automated transaction machine and a remote server to cause an electronic document to be digitally signed.

In addition, in Muftic all of the features (keys, functions) needed to sign an electronic document are located on the smart token and computer. Communication with a remote server with access to private keys in a data store for purposes of causing an electronic document to be digitally signed is not needed in Muftic to digitally sign any document, and therefore is also not inherent in Muftic.

In addition, Appellants' claim 17 also recites that the private key used to digitally sign the electronic document is retrieved from the at least one data store responsive to the data read from the card. Claim 17 recites that this data read from the card corresponds to at least one of an individual to whom the card is provided and a financial account identifying number associated with the individual to whom the card is provided. Nowhere does Muftic or Bachman disclose or suggest these features. For example, although an account number may be stored on the smart token of Muftic, nowhere does Muftic disclose or suggest that the account number is ever read from the smart token and used to retrieve the private key used to digitally sign an electronic document.

In addition claim 17 recites storing data corresponding to each of the private keys in at least one data store, wherein the data corresponding to each private key is stored in correlated relation with data representative of at least one of an individual and a financial account identifying number associated with a respective individual. Nowhere do Muftic or Bachman disclose or suggest these features. As discussed previously the private signature key in Muftic is stored on the smart token, not in a data store of a remote server. Nowhere does Muftic or Bachman disclose or suggest storing a plurality of private keys in a remote server. Although both a single private digital signature key (DSK) and checking account information is stored on the smart token of Muftic, nowhere does Muftic disclose storing a plurality of private digital

signature keys, with each key stored in correlated relation with a checking account number or any other financial account number or data representative of an individual.

In addition, claim 17 recites that the at least one remote server is adapted for communication with each of the plurality of automated transaction machines. Nowhere does Muftic or Bachman disclose or suggest this feature. Neither Muftic nor Bachman discloses or suggests a remote server that is adapted for communication with each of a plurality of automated transaction machines to facilitate digitally signing electronic documents responsive to data read from a card by each automated transaction machine.

Muftic and Bachman do not disclose or suggest the features, relationships, and steps that are specifically recited in claim 17. Thus, a *prima facie* case of obviousness has not been established. On this basis and because there is no prior art teaching, suggestion or motivation cited for combining features of the cited references so as to produce Appellants' invention, it is respectfully submitted that claim 17 is allowable. It is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 17 should be reversed. It follows that the rejections of claims 18-20 which depend from claim 17 should also be reversed.

### **Claim 18**

Claim 18 depends from claim 17 and recites: including on each card provided in (c) a visible digital signature service source indicator mark. Nowhere do the applied references disclose or suggest this step. Muftic shows a visual view of a smart token (360) in Figure 3. However, this visual view does not include a visible digital signature service source indicator mark indicia thereon. The Action also references: Column 3, lines 45 to column 4, line 17; Column 9, line 45 to column 10, line 62; and Column 12, line 65 to column 14, line 36 with

respect to this step. These referenced portions of Muftic disclose data that is stored in, and not visible indicia included on, the smart token. Nowhere in Muftic is there described what, if any, visible indicia is included on the smart token.

As discussed in Appellants' Specification at Paragraph [0103] this recited indicia on the card may be a logo or trademark for a digital signature service. Although Bachman shows a credit/debit card (1) with visible indicia thereon (Figures 1 and 2), such indicia is directed to credit and debit card information (e.g., institution's name that issued the credit card (2), logo representing the issuing financial institution (3)). Bachman does not disclose or suggest card indicia corresponding to a digital signature service source indicator mark.

The Action asserts that ATMs bear multiple markings for financial areas such as "Visa, Master Card, Amex, Plus, or Cirrus" and refers to U.S. Patent No. 6,336,590 ("Kubitz") to support this assertion. The Action also asserts that "when a user visits a web site (Such as Amazon.com or Dell.com or any online merchants or service providers) and wants to conduct a purchase or any other transaction online, such markings are provided to inform the user that they may use their credit cards such as MasterCard or Visa . . .". However, regardless of whether it is known to place logos or markings for financial services on ATMs, web sites or cards, such financial service logos or markings do not by themselves, or in combination with Muftic or Bachman, provide a prior art teaching, suggestion or motivation to provide logos or trademarks for a digital signature service. How can there be such a teaching, suggestion, or motivation, when Muftic, Bachman and Kubitz do not disclose or suggest a digital signature service? Nowhere has the Action shown where a card with any form of digital signature service source indicator exists in the prior art. Nor has Action provided any prior art teaching or suggestion to modify the cards in Muftic to include such indicia.



The Action's attempts to combine features of the cited reference of Muftic with the alleged teachings of Bachman, ATMs and web sites, are clearly attempts at hindsight reconstruction of Appellants' claimed invention, which is legally impermissible and does not constitute a valid basis for a finding of obviousness. *In re Fritch*, 22 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The rejections, which lack the necessary evidence and rationale, are based on knowledge gleaned only from Appellants' disclosure.

On this basis, the 35 U.S.C. § 103(a) rejection of claim 18 should be reversed.

### **Claim 19**

Claim 19 depends from claim 17 and recites that the one automated transaction machine includes a cash dispenser. Claim 19 also recites that the method further comprises dispensing cash through operation of the cash dispenser. Nowhere does Muftic and Bachman disclose or suggest these features and steps.

Nowhere does Muftic or Bachman disclose or suggest operating an automated transaction machine including a cash dispenser to both dispense cash and to cause an electronic document to be digitally signed. Further, column 4, lines 31-40 of Muftic clearly teaches away from using automated teller machines (ATMs) with the system described in Muftic by teaching that there is an inconvenience associated with physically traveling to a nearby ATM in order to obtain banking services. By teaching away from using ATMs (which may include cash dispensers), Muftic teaches away from digitally signing an electronic document through operation of an automated transaction machine, where the automated transaction machine **includes a cash dispenser** that is operative to dispense cash.

A reference teaching away from the recited invention does not support *prima facie* obviousness. It is improper to reconstruct the invention from the disclosure of the Appellants. An obviousness rejection cannot be based on a combination of features in references if making the combination would result in destroying the utility or advantage of the device shown in the prior art references. Note *In re Fine* 5 U.S.P.Q.2d 1598-99 (Fed. Cir. 1988).

For these reasons, it is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 19 should be reversed.

#### **Claim 20**

Claim 20 depends from claim 17 and recites that in (c) each card provided, is at least one of a credit card, debit card and a bank card. Nowhere do the applied references disclose or suggest causing an electronic document to be digitally signed using a private key retrieved from a data store of a remote server responsive to the data read from at least one of a credit card, debit card and a bank card. Thus, the Office has not established *prima facie* obviousness with respect to claim 6.

The Action asserts that "it would have been obvious . . . to interconnect the financial account information of a user to associate with certification authority of the public/private key management system, they might even be the same for the reason that makes a single token more controllable and in addition it would be beneficial to only use one card or smart token to conduct multiple transaction rather than having multiple cards associated with multiple entities for conducting secure transaction." The Action further points to Paltenche, et al., U.S. Application Publication No. 2002/0004783 ("Paltenche").

Appellants disagree with these assertions. Muftic, Bachman, and Paltенche alone or in combination do not support the assertions made in the Action. For example, neither reference discloses or suggests to "interconnect the financial account information of a user to associate with certification authority of the public/private key management system . . ." as asserted in the Action. Nowhere do these references disclose or suggest using data read from a credit card, debit card or a bank card to facilitate signing an electronic document.

The teaching, suggestion, or motivation to combine the features in prior art references must be clearly and particularly identified in such prior art to support a rejection on the basis of obviousness. It is not sufficient to offer a broad range of sources and make conclusory statements. *In re Dembiczak*, supra. The rejection is legally improper for this reason.

The applied references do not disclose or suggest the recited features relationships and steps of claim 20. It is respectfully submitted that the 35 U.S.C. § 103(a) rejection of claim 20 should be reversed.

## CONCLUSION

Each of Appellants' pending claims specifically recites elements, relationships, and steps that are neither disclosed nor suggested in any of the applied prior art. Furthermore, the applied prior art is devoid of any teaching, suggestion, or motivation for producing the recited invention. For these reasons it is respectfully submitted that all the pending claims are allowable.

Respectfully submitted,



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## CLAIMS APPENDIX

### 1. A method comprising:

- a) producing a plurality of digital certificates for a plurality of individual customers, wherein each individual customer is associated with an account;
- b) associating through operation of at least one computer the accounts of the individual customers with the corresponding digital certificates of the individual customers;
- c) producing at least one card for each of the individual customers, wherein each card includes first visible digital signature service source indicator mark indicia thereon corresponding to a digital signature service, wherein each card includes machine readable data corresponding to an account number associated with the account of the individual customer;
- d) sending the cards to the individual customers; and
- e) digitally signing an electronic document through operation of one of a plurality of automated transaction machines, wherein each automated transaction machine is adapted to display a visual representation of the electronic document through a

display device of the automated transaction machine, wherein each automated transaction machine is adapted to cause the electronic document to be digitally signed responsive to communication with the digital signature service, wherein in signing the electronic document at the one machine the communication includes communicating an account number on a card read by the one automated transaction machine.

2. The method according to claim 1, and further comprising labeling each of the plurality of automated transaction machines with second visible digital signature service source indicator mark indicia.

3. The method according to claim 2, wherein the second visible digital signature service source indicator mark indicia is labeled at least one of on and adjacent a fascia of each of the automated transaction machines, wherein in step (e) the first visible digital signature service source indicator mark indicia on the card and the second visible digital signature service source indicator mark indicia on the one machine are visually similar.

4. The method according to claim 1, wherein in step (a) each digital certificate includes a public key that corresponds to a private key, wherein in step (e) communication with the digital signature service causes the electronic document to be digitally signed responsive to a private key that corresponds to a public key of a digital certificate associated with the account corresponding to the account number read from the card by the one machine.

5. The method according to claim 1, wherein in step (e) the digital signature service is operative to access a private key associated with the account number read from the card, wherein the digital signature service causes the electronic document to be digitally signed responsive to the private key.

6. The method according to claim 1, wherein in step (c) each of the cards produced correspond to financial account cards, and wherein the accounts correspond to financial accounts.

7. The method according to claim 6, and further comprising, operating the one automated transaction machine to cause a processing fee to be assessed to a customer associated with the card read by the one automated transaction machine for the digital signing of the electronic documents, and further comprising:

- f) providing through operation of at least one computer to an entity that manages a financial account for the customer, at least a portion of the processing fee.

8. The method according to claim 1, wherein the one automated transaction machine includes a digitizing signature pad and further comprising operating the one automated transaction machine to include handwritten signature data captured with the digitizing signature pad in association with the electronic document.

9. The method according to claim 1, wherein the one automated transaction machine includes a cash dispenser, and further comprising operating the one automated transaction machine to dispense cash.

10. The method according to claim 9, wherein in step (c) the cards correspond to bank cards, wherein the accounts correspond to banking accounts, and wherein in step (e) each of the plurality of automated transaction machines include a cash dispenser, and further comprising operating the automated transaction machines to dispense cash withdrawn from the banking accounts.

11. The method according to claim 1, wherein in step (a) the accounts correspond to digital safe deposit accounts, wherein in step (c) the cards correspond to digital safe deposit account cards.

12. A method comprising:

- a) providing at least one card to each of a plurality of individual customers, wherein each card includes a visible digital signature service source indicator mark thereon, wherein each card includes machine readable data corresponding to at least one account identifying number associated with a respective individual customer to which the card is provided;

- b) providing on each of a plurality of cash dispensing ATMs a visible digital signature service source indicator mark that visually corresponds to the digital signature service source indicator mark included on the cards;
- c) operating one of the plurality of cash dispensing ATMs to: (i) read data on a card presented to the one ATM by a customer; (ii) output a visual representation of an electronic document through at least one output device in operative connection with the one ATM; (iii) cause the electronic document to be digitally signed responsive to communication by the one ATM with a digital signature service server, wherein the digital signature service server is adapted for operative connection with each of the plurality of ATMs, and wherein the communication includes communicating from the one ATM to the digital signature service server, the at least one account identifying number corresponding to the data read from the card by the one ATM.

13. The method according to claim 12, wherein in (a) each account identifying number corresponds to a financial account number, and wherein each card comprises at least one of a credit card, debit card and a bank card.

14. The method according to claim 12, further comprising:

- d) prior to (c), generating through operation of at least one computer a private key and a corresponding public key for each of the plurality of individual customers;



- e) prior to (b), storing the private keys in at least one data store through operation of at least one computer, wherein each private key is stored in correlated relation with a financial account number associated with the respective individual customer;

wherein (c) further includes determining through operation of the digital signature service server responsive to the at least one account number and data stored in the at least one data store, a private key and causing through operation of the digital signature service server a digital signature to be generated for signing the electronic document responsive to the private key, and wherein in (c) the electronic document is signed using the digital signature.

15. The method according to claim 14, further comprising:

- f) producing through operation of at least one computer at least one digital certificate for each of the plurality individual customers, wherein each digital certificate includes the respective public key generated in (d) for the respective customer,

wherein in (c) the public key of the customer presenting the card to the ATM is adapted to be used to authenticate the digital signature with which the electronic document has been signed using the respective corresponding private key.

16. The method according to claim 12, wherein in (b) each of the plurality of ATMs includes a digitizing signature pad, and wherein in (c) the one ATM is operative to cause handwritten signature data to be captured from the customer with a digitizing signature pad and to cause the handwritten signature data to be associated with the electronic document digitally signed through operation of the one ATM.

17. A method comprising:

- a) generating through operation of at least one computer, a plurality of private keys and for each private key, a corresponding public key;
- b) storing data corresponding to each of the private keys generated in (a) in at least one data store through operation of at least one computer, wherein the data corresponding to each private key is stored in correlated relation with data representative of at least one of an individual and a financial account identifying number associated with a respective individual;
- c) providing at least one card to each of a plurality of individuals, wherein each card includes machine readable data corresponding to at least one of an individual to whom the card is provided and a financial account identifying number associated with the individual to whom the card is provided;

- d) operating one of a plurality of automated transaction machines to: (i) read data from a card presented by one of the plurality of individuals to the one machine; (ii) display a visual representation of an electronic document through at least one output device in operative connection with the one machine; and (iii) cause the electronic document to be digitally signed using a private key retrieved from the at least one data store responsive to the data read from the card, through communication between the one machine and at least one remote server in operative connection with the at least one data store, wherein the at least one remote server is adapted for communication with each of the plurality of automated transaction machines.

18. The method according to claim 17, and further comprising, including on each card provided in (c) a visible digital signature service source indicator mark,

and further comprising including on each of the plurality of automated transaction machines, a visible digital signature service source indicator mark which visually corresponds to the visible digital signature service source indicator mark on each of the cards provided in (c).

19. The method according to claim 17, wherein the one automated transaction machine includes a cash dispenser and further comprising dispensing cash through operation of the cash dispenser.

20. The method according to claim 17, wherein in (c) each card provided is at least one of a credit card, debit card and a bank card.

(ix)

## **EVIDENCE APPENDIX**

(None)

(x)

**RELATED PROCEEDINGS APPENDIX**

(None)